

# **NUECES BBASC STUDY #1**

## **RE-EXAMINATION OF THE 2001 AGREED ORDER MONTHLY TARGETS AND SAFE YIELD VERSUS CURRENT DEMAND EVALUATIONS**

NEAC – OCTOBER 20, 2014  
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### **DISCUSSION**

Background

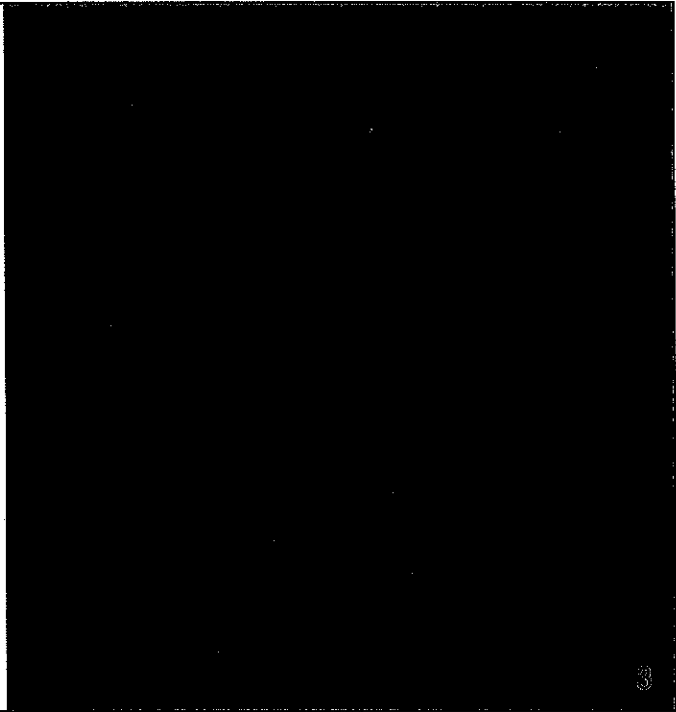
Status

Results

Schedule

## BACKGROUND

- Nueces BBASC work plan
- Nueces BBEST
  - Seasonal shift in inflows
    - BBEST Report Sec. 4.1
    - Nueces Bay
    - Choke Canyon Reservoir / Lake Corpus Christi System
  - Nueces BBASC Report (Sec. 2.3)
    - Opportunities to better manage FWI... since the 1995 development of the Agreed Order
  - Corpus Christi Water Supply Model (CCWSM)



## GOALS

- Determine if a "shift" has occurred in the inflows to the Bay and CCR/LCC System and what impact this "shift" may have on Safe Yield and FWI to the Bay.
- Compare the results from a Safe Yield Demand of 205,000 acft/yr to a current demand of 130,000 acft/yr on FWI to the Bay.

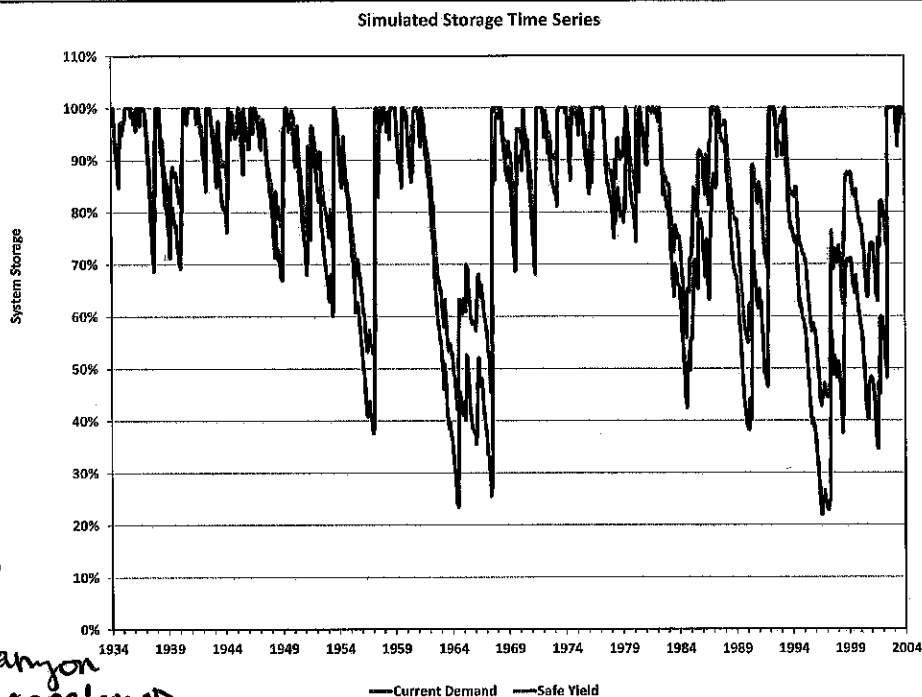




## LONG-TERM LAKE LEVELS

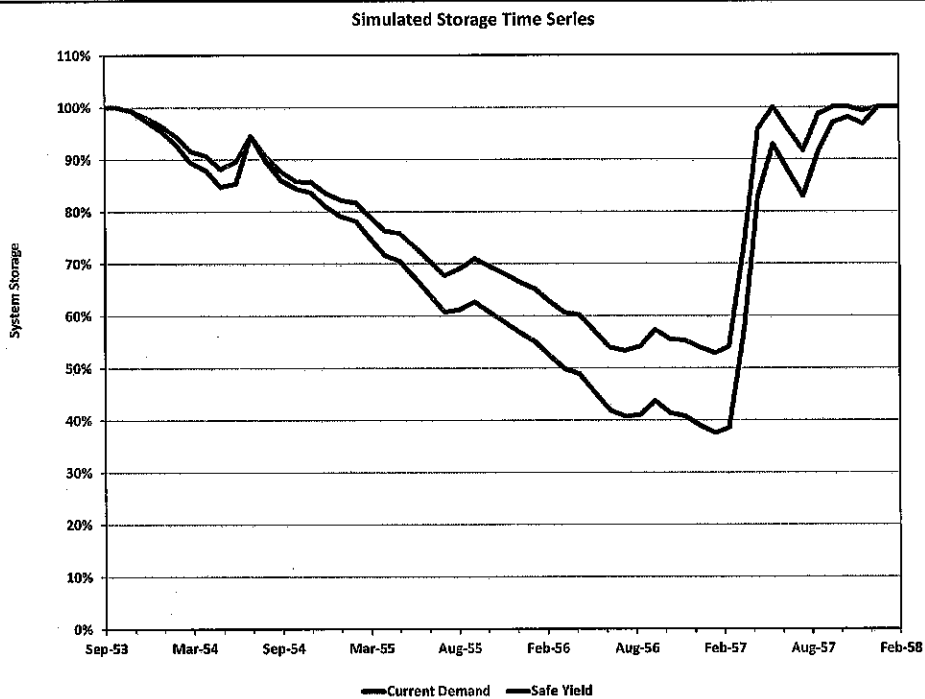
- More drawdown in drought from higher demands.

Lake Corpus  
&  
Choke canyon  
100% combined



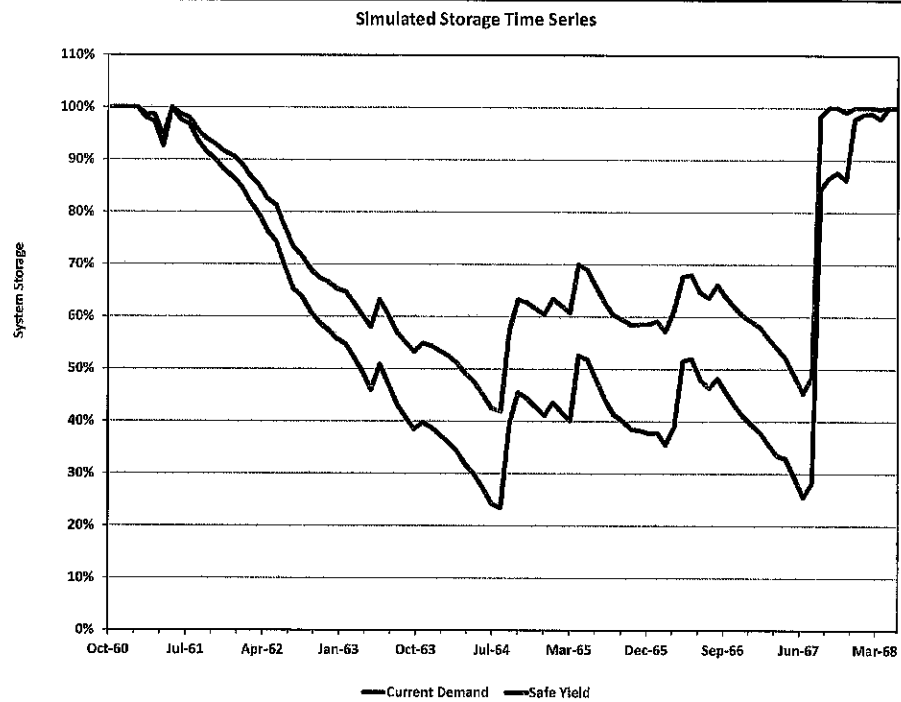
## LAKE LEVELS

- 1950's Drought Comparison



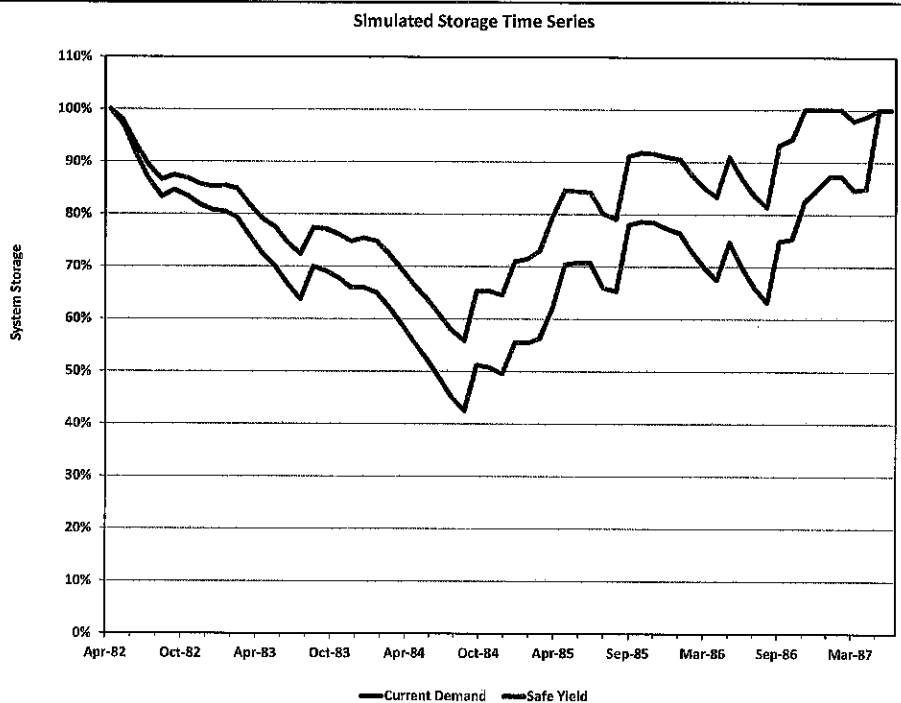
## LAKE LEVELS

- 1960's Drought Comparison



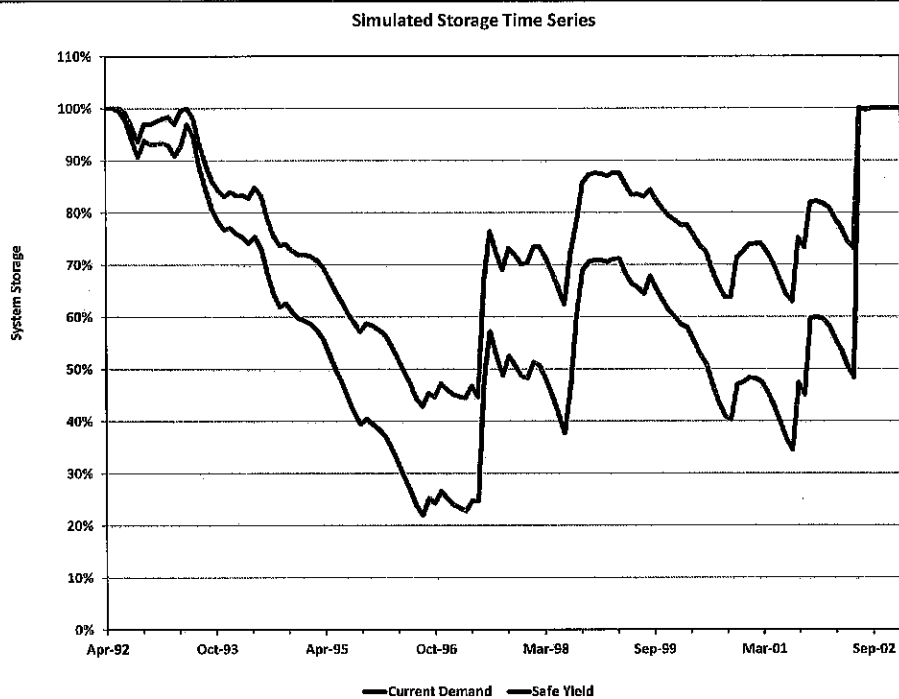
## LAKE LEVELS

- 1980's Drought Comparison



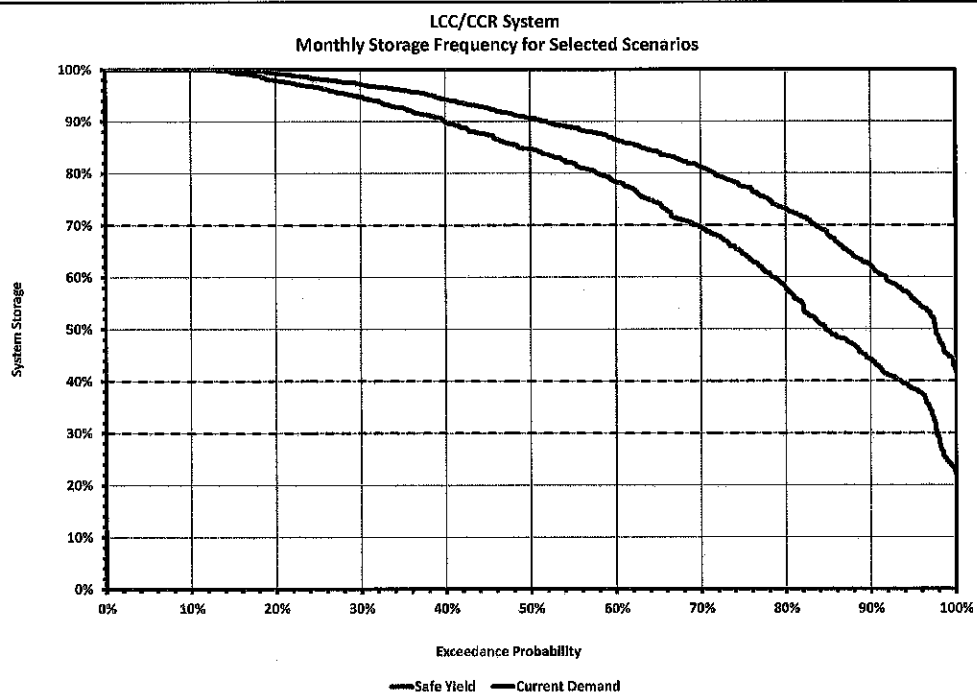
## LAKE LEVELS

- 1990's Drought Comparison



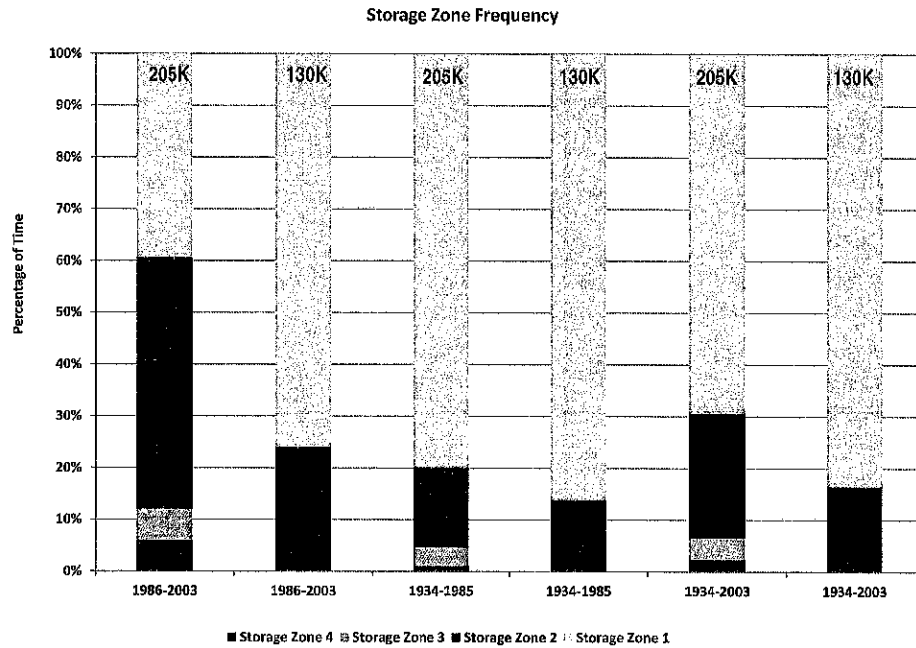
## LAKE LEVEL FREQUENCY

- Lower demand = Higher Lake Level



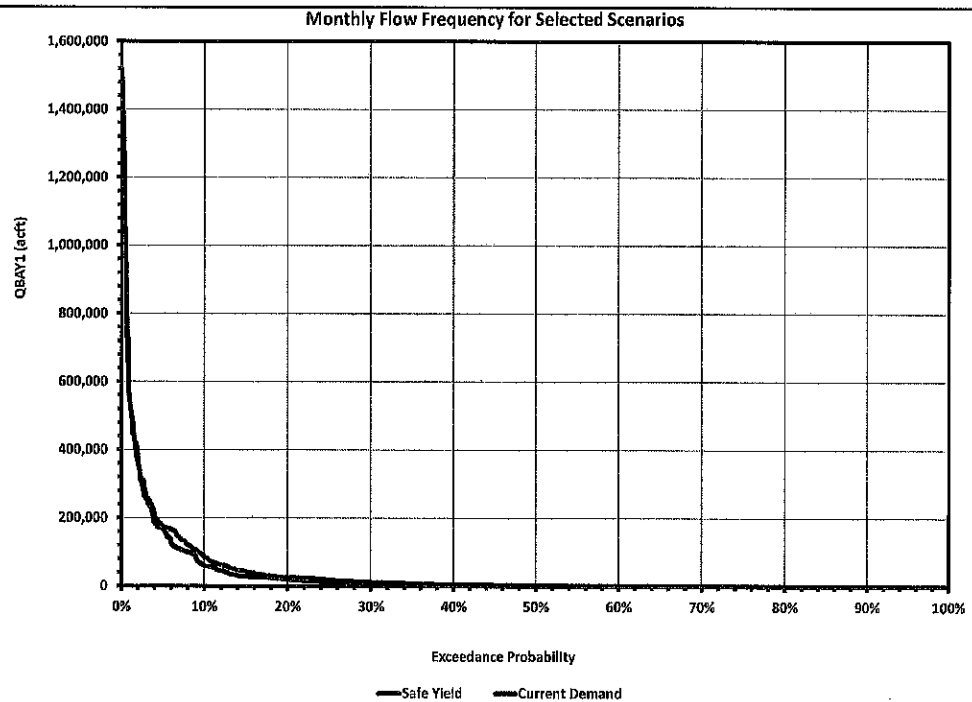
# **STORAGE** **ZONE** **PERCENTAGES**

- Higher zone = opportunity for higher pass-throughs
- Recent timeframe shows more time in lower zones



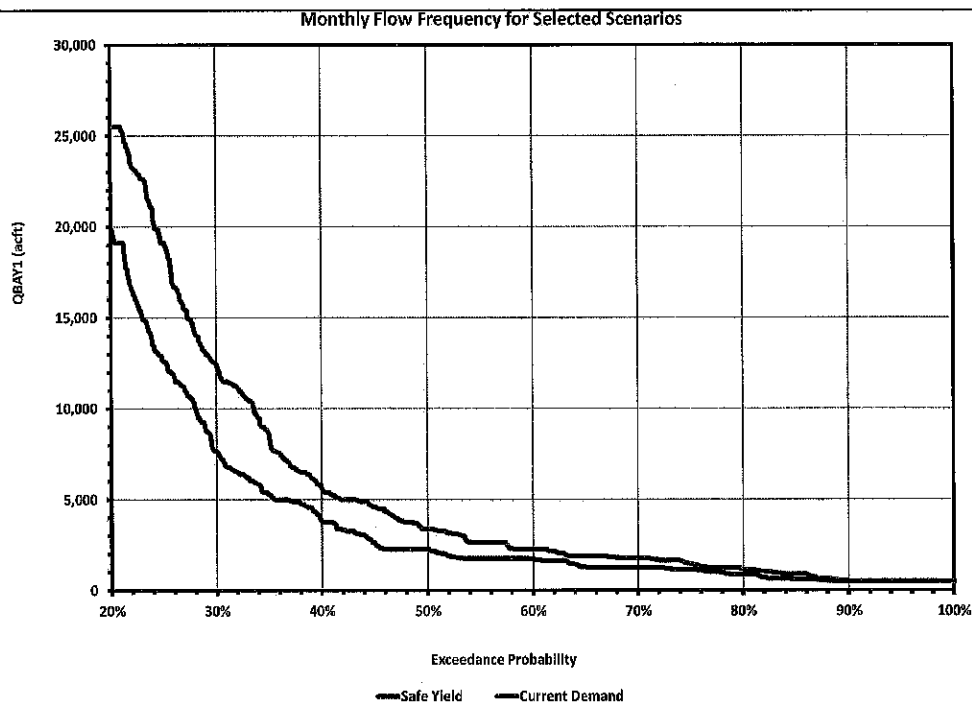
## **FWI INFLOW** **FREQUENCY**

- Big Picture
  - Land of extremes
  - 5% wet
  - 80% dry

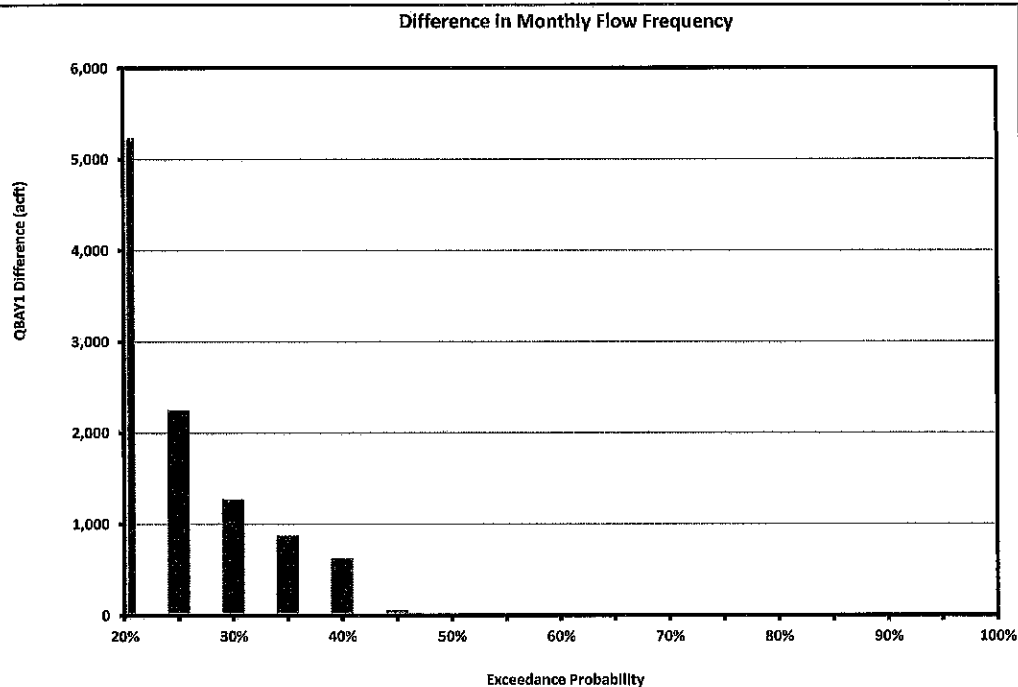


## FWI FREQUENCY

- More time in higher zones = increase in monthly pass-throughs
- Dry times are still dry.
  - About 65% of the time, difference less than 1,000 acft/mo
- Average difference during dry times = 2,500 acft



## FWI FREQUENCY



34-03



## WATER BALANCE

- System Outflows
  - Spills are a significant part of the system.

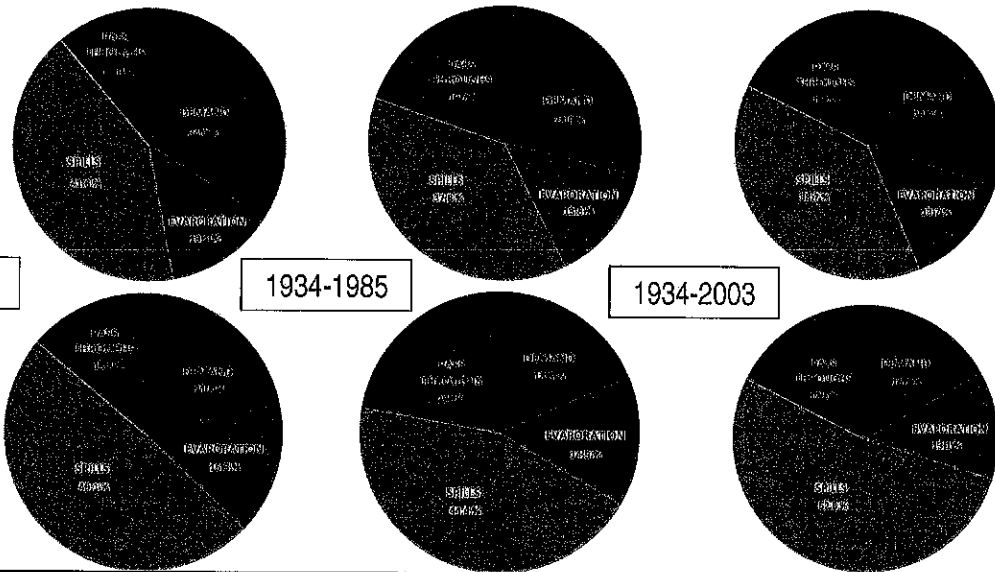
Safe Yield

1986-2003

1934-1985

1934-2003

Current Demand

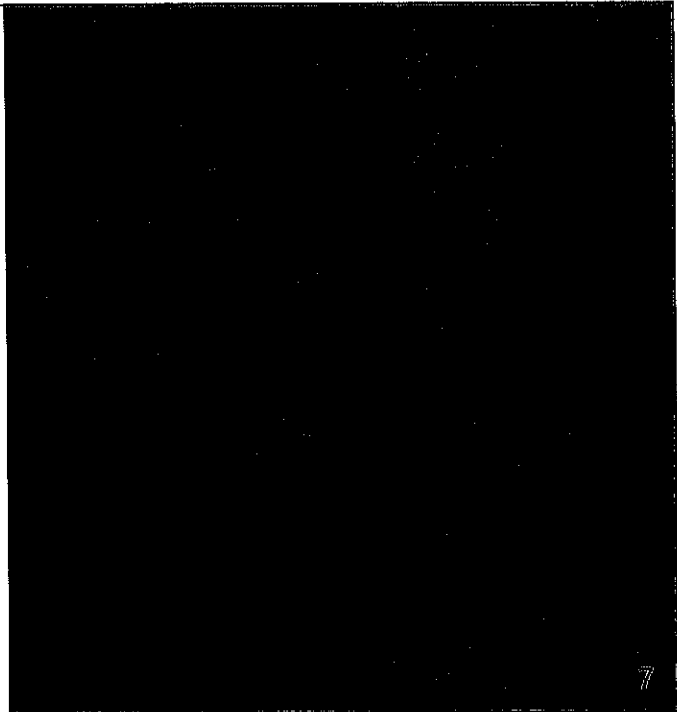


## TASK 2 – FINDINGS

- Lower demand = higher lake levels = more opportunity for larger pass-throughs
- Differences in FWI are relatively small
- Drought times are dominated by lack of inflows

## **TASK 3 – MEETINGS AND REPORT**

- Task 3 – Meetings and Report
  - Kickoff Meeting (June 2014)
  - Results Meeting #1 (Today)
  - 2nd Results Meeting (2015)
  - Draft and Final Report (2015)



## **SCHEDULE**

- Complete Analysis by March 2015
- Present Results Spring 2015
- Draft report after analysis
- Final report due August 2015

